ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY PERMIT APPLICATION PACKET

FOR

CRUSHING AND SCREENING PLANTS

CREATED ON MARCH 17,1998

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INTRODUCTION

This manual has been developed specifically for crushing and screening plant operations to help streamline the Arizona Department of Environmental Quality (ADEQ) air quality permitting process and decrease the time required for a permit review.

This manual is intended to clarify the contents of Appendix 1 of the Arizona Administrative Code (A.A.C.) (Standard Application Form and Filing Instructions) and aid the applicant in submitting the information required in a manner which will speed permit processing. By submitting a complete permit application, the application review time can be decreased significantly. In most cases, the proper submittal of items listed in this manual will ensure that the application contains all necessary information. However, ADEQ may require that additional information be submitted before the permit is processed.

JURISDICTION

Stationary Sources

Stationary sources shall apply to ADEQ, except for stationary sources which are located exclusively in Maricopa, Pima, or Pinal counties. If the stationary source is located in one of these three counties, contact that county agency for the application packet and other information.

Portable Sources

Portable sources shall apply to ADEQ, except for portable sources which will operate for the duration of the permit solely in Maricopa, Pima, or Pinal county. If the portable source will operate for the duration of the permit in one of these three counties, contact that county agency for the application packet and other information.

If the applicant has any questions regarding jurisdictional issues, please contact ADEQ.

APPLICATION INSTRUCTIONS

This section of the manual helps the applicant assemble a complete application, make the appropriate calculations, determine the applicable regulations, complete a compliance plan, and submit all information in a manner which will expedite permit review.

ADEQ recognizes that Crushing and Screening plants, in general, move frequently. The information provided in the application should reflect the most recent situation.

Please read all sections of this manual very carefully. Provide all information requested. The final application submitted should include the forms in this packet and any attachments necessary to submit all information (i.e. map, plot plan, etc.). Make additional copies of the forms as necessary to be sure all information is included.

STEP 1: STANDARD APPLICATION FORM

A.A.C. R18-2-304 requires applicants to submit the Standard Application Form and Filing Instructions, Form 1 of this packet. The first step towards fulfilling the submittal requirements of a permit application is proper completion of the Standard Application Form. **Items 1** through **5** of the application form are self-explanatory. The rest are explained below in detail.

Item #6 asks for the plant/site manager or contact person. This should be the person ADEQ may contact for additional information.

Item #7 is necessary to determine the location of the plant. The section/township/range may be substituted for the latitude/longitude coordinates.

Item #8, the "Equipment Purpose" should describe what is produced at the plant.

Under **item #9**, if the "other" box is checked, please be specific as to what the organization is.

Item #10, Permit Application Basis, indicates what type of permit is necessary. If the plant is already permitted and is applying for a permit revision or renewal, then the current permit number must be included. The date of commencement of construction or modification is the expected date that construction will begin. This date need not be definite. The Standard Industrial Classification Code for crushing and screening plants is 1499.

If there is any chance that the equipment will be leased out, answer "yes" to the last part of item #10. If you check "no", the permit will contain a condition which prohibits leasing of the equipment; changing this condition will require a permit revision.

Item #11, The "Responsible Official" referred to is the owner or a partner of the company in most cases. It may also be the president or vice-president of larger companies. If there is a question as to who the responsible official is, please consult A.A.C. R18-2-301(10). This rule has

been reproduced in the appendix for reference.

STEP 2: PROCESS DESCRIPTION

Please provide a process description. A process description is a complete description of the product manufacturing process. The description begins with the raw materials which make the product, and ends when the product is finished. This includes a description of how the process material is received, processed, stored and mixed, as well as how the final products are handled. The process description must include a discussion of the process materials including the amount of material the plant is able to process.

The process description should be accompanied by a process flow diagram. This diagram should depict all the processes and pollution abatement equipment the product flows through. The diagram should track the process description. A reviewer should be able to read the process description while looking at the process flow diagram, and relate exactly what is happening to the raw materials and products.

STEP 3 EMISSION SOURCES FORM

The following discussion provides instruction as to how the emission sources form should be completed.

The first table entry is the emission point number. This should correspond to the number on the plot plan required in step 6 of this manual.

The name of the emission point must be placed in the next column. This name should correspond to the plot plan as well. The names may include aggregate storage piles, transfer points, generators, etc. The "Regulated Air Pollutant Name" is simply the name of the pollutant.

The "pounds per hour" and “ton per year” column must have the emission rate of the particular pollutant listed under the pollutant name category. These values should be taken from the corresponding tables in Form 3.

The "Height Above Ground" is the distance between the exit of the emissions and the ground. The "Height Above Structure" is the distance between the structure below the exit and the exit. This length may be zero if the emissions are not vented through a stack but directly from the equipment.

The inside diameter or inside length and width of the stack are to be listed in the "Diameter" column. The exit velocity and temperature of the gases coming out of the stack are to be listed in the next two columns.

For non-point sources such as haul roads, aggregate piles, and transfer points, the length and width of the area which encompasses the emissions must be included.

STEP 4: CALCULATION OF EMISSIONS

Air pollutant emission rate information must be provided in Form 3. Form 3 contains worksheets to assist the applicant in calculating emission rates from the various processes associated with Crushing and Screening plant operations.

STEP 5: MAP OF PLANT LOCATION

Please provide a map of the current plant location. This may be a city map, topographical map or any map which clearly shows the location. Mark the location of the plant on the map and submit it as part of the application. The map should include driving directions to the plant site from the nearest highway.

STEP 6: PLOT PLAN

Please provide a plot plan of the current equipment configuration. A plot plan is an aerial drawing of the plant property drawn to scale or dimensions shown. It should include:

1. Clearly identified property boundaries;
2. All buildings with their respective dimensions (length, width, and height);
3. A schematic of the typical equipment layout;
4. Location of the stack and all tanks, silos, bins, conveyors, storage piles, control equipment and other equipment;
5. Clearly identified and numbered emission points which correspond to the emission sources form;
6. A north arrow;
7. A scale if the drawing is to scale;
8. Adjacent streets or roads and street names if available; and
9. Location, length and width of haul roads

STEP 7: EQUIPMENT LIST

ADEQ needs to identify all pieces of equipment covered under each permit. Use Form 4 to provide a list of all pieces of equipment to be permitted

including control equipment and generators (make additional copies if necessary). The list should include not only the **type of equipment, but also the make, model, serial number, manufacture date of the plant, and equipment identification number (if available) of each piece of equipment, and a brief description of any reconstruction or modification performed on any of the equipment.**

In many cases, the plant will not yet have been purchased at the time of application. If this is the case, the serial number will not need to be listed, but an equipment identification number will need to be provided. The equipment identification number must be clearly stenciled on each piece of equipment to be permitted once such equipment is purchased.

STEP 8: DESCRIPTION OF AIR POLLUTION CONTROL EQUIPMENT AND PROCEDURES

All pollution control equipment and pollution control procedures must be described in order to satisfy this submittal requirement. Form 5 can be used to submit the necessary pollution control information.

STEP 9: DETERMINING THE APPLICABLE REGULATIONS

In completing an application, it is necessary for the applicant to be familiar with the regulations which apply. Below is a list of the regulations which apply to Crushing and Screening plants.

If the Crushing and Screening facility was manufactured or modified on or before August 31, 1983, the source is subject to:

3 **A.A.C. R18-2-702, General Provisions; and**
A.A.C. R18-2-722, Standards of Performance for Existing Gravel or Crushed Stone Processing Plants;
Note: Crushing and screening facilities which are subject to R18-2-722 are considered non-Title V. The fee structure is different for Title V and non-Title V plants.

or if the facility was manufactured or modified after August 31, 1983 the source is subject to:

3 **A.A.C. R18-2-901.65 (40 CFR 60 Subpart 000), Standards of Performance for Non metallic Mineral Processing Plants**
Note: Crushing and screening facilities which are subject to R18-2-901.65 are considered Title V. The fee structure is different for Title V and non-Title V sources.

The following is a listing of additional regulations that may apply to crushing and screening plants. This is not a complete list. If necessary, the applicant needs to identify other regulations that may apply and list them.

1. **A.A.C. R18-2-601 General Provisions for Emissions from Existing and New Non-point Sources**
2. **A.A.C. R18-2-604 Standards for Open Areas, Dry Washes or Riverbeds**
3. **A.A.C. R18-2-605 Standards for Roadways and Streets**
4. **A.A.C. R18-2-606 Standards for Material Handling**
5. **A.A.C. R18-2-607 Standards for Storage Piles**
6. **A.A.C. R18-2-310 Excess Emissions**
7. **A.A.C. R18-2-311 Test Methods and Procedures**
8. **A.A.C. R18-2-312 Performance Tests**
9. **A.A.C. R18-2-315 Posting of Permit**
10. **A.A.C. R18-2-327 Annual Emissions Inventory Questionnaire**
11. **A.A.C. R18-2-324 Portable Sources**
12. **A.A.C. R18-2-201 through 220 Ambient Air Quality Standards**
13. **A.A.C. R18-2-326 or R18-2-511 Fees Related to Individual and General Permits (respectively)**
14. **A.A.C. R18-2-719 Stationary Rotating Machinery (if a generator is used)**

STEP 10: COMPLIANCE PLAN, COMPLIANCE SCHEDULE, AND CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

A compliance plan/certification must be submitted by all applicants. FORM 6 can be used to submit a compliance plan/certification.

For all applicable requirements for which the source is **OUT OF COMPLIANCE**, the applicant is required to submit a *schedule of compliance*. The purpose of the schedule of compliance is to outline the steps being taken to bring the source back into compliance with all applicable regulations. The format of a schedule of compliance can vary widely depending on the type and extent of non-compliance. Two examples are provided below:

A. *A source is required by a prior permit to complete a performance test on the rotary drum dryer stack prior to permit expiration. The source has not completed this test before applying for a renewal.*

The following information will have to be provided by the source as part of its compliance plan:

Compliance Status: The source will have to report the fact that a prior permit condition has been violated.

Schedule of Compliance: The source will have to provide a plan which outlines the steps being taken to achieve compliance. The enforceable sequence of actions could include the following milestones:
(a) date on which performance test is planned for
(b) date on which report will be submitted to ADEQ.

B. *A source is unable to comply with the 40% opacity standard for visible emissions from area sources such as unpaved haul roads in spite of constant watering.*

The following information will have to be provided by the source as part of its compliance plan:

Compliance Status: The source will have to report non-compliance with an applicable requirement.

Schedule of Compliance: The source will have to provide a plan which outlines the steps being taken to achieve compliance. The enforceable sequence of actions could include the following milestones:
(a) date on which bid to purchase chemical dust suppressants is advertised,
(b) date on which chemical dust suppressant is planned to be purchased, and
(c) date on which chemical dust suppressant is planned to be applied.

The schedule of compliance has to be submitted **only** for those sources that are non-compliant with an applicable regulation. The above examples are merely to illustrate possible formats for a schedule of compliance. **In reality it is necessary for non-compliant sources to work with ADEQ staff to draft such schedules. Any applicant required to submit a schedule of compliance is strongly encouraged to contact ADEQ staff.**

STEP 11: FILING INSTRUCTIONS

The applicant needs to fill out the fee worksheet enclosed in the applications packet and make out a check or money order payable to ADEQ for the amount determined. The application fee must accompany each application submittal.

Please mail all applicable forms and the applications fee to the following address:

Arizona Department of Environmental Quality
Air Quality Division
3033 North Central Ave.
Phoenix, AZ 85012-2809

FORM 1: STANDARD PERMIT APPLICATION FORM

(As required by A.R.S. § 49-426 and Chapter 2, Article 3, Arizona Administrative Code)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
3003, N. Central Avenue, Phoenix, AZ-85012-290703. Phone: (602) 207-2338

1. Permit to be issued to: (Business license name of organization that is to receive permit)_____
_____

2. Mailing Address: _____
City:_____State:_____Zip:_____

3. Previous Company Name: (if applicable)_____

4. Name (or names) of Owners/Principals: _____
Fax #: _____ Phone #:_____

5. Name of owner's agent: _____
Fax #: _____ Phone #: _____

6. Plant/Site Manager or Contact Person/Title:_____
Fax#: _____ Phone #:_____

7. Proposed Plant Name:_____
Proposed Plant Location/ Address: _____
City:_____ County:_____ Zip: _____
Indian Reservation (if applicable):_____
Latitude/Longitude, Elevation: _____

8. Equipment Name/Purpose: _____
Equipment List/Description:_____

9. Type of Organization:
G Corporation **G**Individual Owner
G Partnership **G**Governmental Entity (Governmental Facility Code:)

10. Permit Application basis: **G** New Source **G**Revision **G**Renewal of existing permit
GPortable Source **G**General Permit

For renewal and modification, include existing permit number (and exp. date):_____
Date of commencement of construction or modification: _____
Is any of the equipment to be leased to another individual or entity: **G**Yes **G** No
Standard Industrial Classification Code: _____ State Permit Class:_____

11. Signature of Responsible Official:_____
Official title of Signer:_____
Typed or Printed Name of Signer:_____Date:_____Telephone Number: _____

FORM 2: EMISSION SOURCES FORM

Estimated "Potential to Emit" per R18-2-101

Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table.

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS										
EMISSION POINT (1)		Chemical Composition	Emission rates		UTM coordinates of emission point (5)			Stack Sources (6)					Non point sources (7)	
Number	Name	Regulated air pollutant name (2)	# /hr (3)	ton/year (4)	zone	east (meters)	north (meters)	Height above ground (feet)	Height above structure (feet)	Exit data			Length (ft)	Width (ft)
										Dia (ft)	Vel (fps)	Temp (deg F)		
	Batch Drop Operations	PM-10 (Table 1)												
	Loading of Feed Hoppers	PM-10 (Table 2)												
	Crushers	PM-10 (Table 3)												
	Screens	PM-10 (Table 4)												
	Stackers and Transfer Points	PM-10 (Table 5)												
	Lime Silos	PM-10 (Table 6)												
	Generators	CO (Table 8)												
		VOC (Table 8)												
		NOx (Table 8)												

Ground elevation of facility above mean sea level _____ feet.

ADEQ standard conditions are 293K and 101.3 KiloPascals (A.A.C. R18-2-101)

General Instructions:

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits and emission inventory questionnaire. Include fugitive emissions. Limit emission point number to (8) character spaces. For each emission point, use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are OK.
2. Components to be listed include regulated air pollutants as defined in R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NOx), Sulfur Dioxide (SO2), Volatile Organic Compounds (VOC), Particulate Matter (PM), Particulate Matter less than 10 microns (PM-10), etc. Abbreviations are OK.
3. Pounds per hour (#/hr) is maximum potential emission rate expected by applicant.
4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.
5. As a minimum, applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purposes of demonstrating compliance with ambient air quality guidelines.
6. Supply additional information as follows if appropriate:

a. Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate horizontal discharge with a note.

b. Stack's height above supporting or adjacent structures if structure is within 3 '' of stack height above ground " of stack

7. Dimensions of nonpoint sources are defined in R-18-2-101.

FORM 2: EMISSION SOURCES FORM

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REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS										
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Number	Name	Regulated air pollutant name (2)	# /hr (3)	ton/year (4)	zone	east (meters)	north (meters)	Height above ground (feet)	Height above structure (feet)	Exit data			Length (ft)	Width (ft)
										Dia (ft)	Vel (fps)	Temp (deg F)		
	Generator	PM-10 (Table 8)												
		SOx (Table 8)												
NON POINT SOURCES														
	Aggregate Storage Piles	PM-10 (Table 9)												
	Haul Roads	PM-10 (Table 9)												

Ground elevation of facility above mean sea level _____ feet.

ADEQ standard conditions are 293K and 101.3 KiloPascals (A.A.C. R18-2-101)

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2. Components to be listed include regulated air pollutants as defined in R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NOX), Sulfur Dioxide (SO2), Volatile Organic Compounds (VOC), Particulate Matter (PM), Particulate Matter less than 10 microns (PM-10), etc. Abbreviations are OK.
3. Pounds per hour (#/hr) is maximum potential emission rate expected by applicant.
4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.
5. As a minimum, applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purposes of demonstrating compliance with ambient air quality guidelines.
6. Supply additional information as follows if appropriate:

a. Stack exit configuration other than a round vertical stack. Show length and width for a rectangular stack. Indicate horizontal discharge with a note.

b. Stack's height above supporting or adjacent structures if structure is within 3 '' of stack height above ground" of stack

7. Dimensions of nonpoint sources are defined in R-18-2-101.

FORM 3: EMISSIONS CALCULATIONS

1. CRUSHING/SCREENING OPERATIONS

In order for ADEQ to fully evaluate a permit application, the amount of pollutants emitted from the Crushing and Screening plant operations must be estimated. This section of the manual is intended to guide the applicant through the emission calculations. Emissions from Crushing and Screening operations consist of particulate matter in the form of total suspended particulates (TSP) and PM_{10}. PM_{10} is particulate matter which has an average diameter less than 10 micrometers. The applicant should make additional copies of any pages necessary to submit the total emissions from all crushing and screening operations.

A. Calculating Emissions From Batch Drop Operations

i. Examples of batch drop operations include truck dumping onto a storage pile, loading out from a storage pile to a truck with a front-end loader, or front-end loader dumping onto a storage pile. Batch drop operations do not include the loading of feed hoppers. Table 2 has been designed to calculate the emissions from the loading of feed hoppers.

ii. Table 1 must be completed in order to calculate the PM_{10} emissions from the batch drop operation(s). To calculate emissions from the batch drop operations in pounds per hour, the maximum throughput rate of the plant listed in column (a) is multiplied by the emission factor in column (b). To calculate emissions from the batch drop operations in tons per year, the maximum throughput rate of the plant listed in column (a) is multiplied by the emission and conversion factors listed in columns (b) and (c).

iii. Once the emissions have been calculated for all batch drop operations, the emissions must be summed up in the box labeled "Total PM_{10} Emissions."

Table 1: PM_{10} EMISSIONS FROM BATCH DROP OPERATIONS

Maximum throughput rate (ton/hr) **(a)**	**Emission factors** (lbs/ton) **(b)**	**PM-10 Emissions** (lb/hr) **(a) x (b)**	**Conversion Factor** (ton/yr)/(lb/hr) **(c)**	**Emissions** (ton/yr) **(a x b x c)**
	.00011			

Reviewed by	*Date*

FORM 3: EMISSIONS CALCULATIONS CONTINUED

B. Calculating Emissions from the Loading of Feed Hoppers

i. TABLE 2 must be completed in order to calculate the PM_{10} emissions from the loading of feed hopper(s). To calculate the emissions from the loading of the feed hoppers in pounds per hour, the maximum throughput rate of each feed hopper listed in column (a) is multiplied by the emission factor listed in column (b). To calculate emissions from loading of the feed hoppers in tons per year, the maximum throughput rate of each feed hopper listed in column (a) is multiplied by the emission and conversion factors listed in columns (b) and (c).

ii. Once the emissions have been calculated for the loading of all feed hoppers, the emissions must be summed up and placed in the box labeled "Total PM_{10} Emissions."

TABLE 2: PM10 EMISSIONS FROM THE LOADING OF FEED HOPPERS

Serial # or Equipment ID #	Maximum Throughput Rate (ton/hr) (a)	Emission Factor (lb/ton) (b)	Emissions (lbs/hr) (a x b)	Conversion Factor (tons/yr)/(lbs/hr) (c)	Emissions (tons/yr) (a x b x c)
		.000055		4.38	
		.000055		4.38	
		.000055		4.38	
		.000055		4.38	
		.000055		4.38	
Total PM_{10} Emissions					

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

C. Calculating Emissions From Crushers

i. TABLE 3 must be completed in order to calculate the PM_{10} emissions from the crusher(s). To calculate emissions from the crusher(s) in pounds per hour, the maximum throughput rate of each crusher listed in column (a) is multiplied by the emission factor listed in column (b). To calculate the emissions in tons per year, the maximum throughput rate of each crusher listed in column (a) is multiplied by the emissions and conversion factors listed in columns (b) and (c). Once the emissions have been calculated for each crusher, the emissions from all the crushers must be summed up and placed in the box labeled "Total PM_{10} Emissions."

ii. Primary crushers are defined as any crusher that reduces material to approximately 3 to 12 inches in diameter. Secondary crushers are defined as any crusher that reduces material to approximately 1 to 4 inches in diameter. Tertiary crushers are defined as any crusher that reduces material to approximately $3/16^{th}$ to 1 inch in diameter.

TABLE 3: PM_{10} EMISSIONS FROM CRUSHERS

Serial # or Equipment ID #	Maximum Throughput Rate (ton/hr) (a)	Emission Factor (lb/ton) (b)	Emissions (lbs/hr) (a x b)	Conversion Factor (tons/yr)/(lbs/hr) (c)	Emissions (tons/yr) (a x b x c)
PRIMARY CRUSHERS					
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
SECONDARY CRUSHERS					
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
TERTIARY CRUSHERS					
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
		.00059		4.38	
Total PM_{10} Emissions					

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

D. Calculating Emissions From Screens

i. TABLE 4 must be completed in order to calculate the PM_{10} emissions from the screen(s). To calculate the emissions from the screen(s) in pounds per hour, the maximum throughput rate of each screen listed in column (a) is multiplied by the emission factor listed in column (b). To calculate emissions from the screen(s) in tons per year, the maximum throughput rate of each screen listed in column (a) is multiplied by the emission and conversion factors listed in columns (b) and (c). Once the emissions have been calculated for each screen, the emissions from all screens must be summed up and placed in the box labeled "Total PM_{10} Emissions."

ii. Fine screens are defined as any screen that sizes material up to $3/16^{th}$ of an inch in diameter.

TABLE 4: PM_{10} EMISSIONS FROM SCREENS

Serial # or Equipment ID #	Maximum Throughput Rate (ton/hr) (a)	Emission Factor (lb/ton) (b)	Emissions (lbs/hr) (a x b)	Conversion Factor (tons/yr)/(lbs/hr) (c)	Emissions (tons/yr) (a x b x c)
SCREENING					
		.00084		4.38	
		.00084		4.38	
		.00084		4.38	
		.00084		4.38	
		.00084		4.38	
FINE SCREENING					
		.0021		4.38	
		.0021		4.38	
		.0021		4.38	
		.0021		4.38	
		.0021		4.38	
Total PM_{10} Emissions					

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

E. Calculating Emissions From Stackers and Transfer Points

i. TABLE 5 must be completed in order to calculate the PM_{10} emissions from the stacker(s) and transfer point(s). To calculate emissions from the stacker(s) in pounds per hour, the maximum throughput rate of each stacker listed in column (a) is multiplied by the emission factor listed in column (b). To calculate the emissions from the stacker(s) in tons per year, the maximum throughput rate of each stacker listed in column (a) is multiplied by the emission and conversion factors listed in columns (b) and (c). To calculate emissions from the transfer point(s) in pounds per hour, the number of transfer points listed in column (a) is multiplied by the maximum throughput rate and the emission factor listed in columns (b) and (c). To calculate emissions from the transfer point(s) in tons per year, the number of transfer points listed in column (a) is multiplied by the maximum throughput rate, the emission factor, and the conversion factor listed in columns (b), (c), and (d). A transfer point is a point of emission where the process material is airborne (e.g. between two conveyors).

ii. Once the emissions have been calculated for each stacker and transfer point, the emissions from all the stackers and transfer points must be summed up and placed in the box labeled "Total PM_{10} Emissions."

TABLE 5: PM_{10} EMISSIONS FROM STACKERS AND TRANSFER POINTS

Serial # or Equipment ID #	Maximum Throughput Rate (ton/hr) (a)	Emission Factor (lb/ton) (b)	Emissions (lbs/hr) (a x b)	Conversion Factor (tons/yr)/(lbs/hr) (c)	Emissions (tons/yr) (a x b x c)
STACKERS					
		.000055		4.38	
		.000055		4.38	
		.000055		4.38	
		.000055		4.38	
Number of Transfer Points (a)	**Maximum Throughput Rate (ton/hr) (b)**	**Emission Factor (lb/ton) (c)**	**Emissions (lbs/hr) (a x b x c)**	**Conversion Factor (Tons/yr)/(lbs/hr) (d)**	**Emissions (tons/yr) (a x b x c x d)**
TRANSFER POINTS					
		.000048		4.38	
		.000048		4.38	
		.000048		4.38	
		.000048		4.38	
Total PM_{10} Emissions					

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

F. Calculating Emissions From Lime Silos

TABLE 6 must be completed in order to calculate the PM_{10} emissions from the lime silo operation(s). To calculate emissions from the loading of the lime silo(s) in pounds per hour, the maximum throughput rate of the plant listed in column (a) is multiplied by the maximum fraction of lime added by weight to the material, the control factor (1-(baghouse efficiency/100)), and the emission factor listed in columns (b), (c), and (d). To calculate emissions from the loading of the lime silo(s) in tons per year, the maximum throughput rate of the plant listed in column (a) is multiplied by the maximum fraction of lime added by weight to the material, the control factor, the emission factor, and the conversion factor listed in columns (b), (c), (d), and (e). To calculate emissions from the lime discharging onto the conveyor belts in pounds per hour, the number of discharge points listed in column (a) is multiplied by the maximum throughput rate of the plant, the maximum fraction of lime added by weight to the material, and the emission factor listed in columns (b), (c), and (d). To calculate emissions from the lime discharging on the conveyor belts in tons per year, the number of discharge points listed in column (a) is multiplied by the maximum throughput rate of the plant, the maximum fraction of lime added by weight to the material, the emission factor, and conversion factor listed in columns (b), (c), (d), and (e). Once the emissions have been calculated for each lime silo, the emissions from all the lime silo activities must be summed up and placed in the box labeled "Total PM_{10} Emissions."

TABLE 6: PM_{10} EMISSIONS FROM LIME SILOS

Serial # or Equipment ID #	Maximum Throughput Rate (ton/hr) (a)	Maximum Amount of Lime Added by Weight (percentage/100) (b)	Control Efficiency of Baghouse or Wet Scrubber. (1-(baghouse efficiency/100)) (c)	Emission Factor (lb/ton) (d)	Emissions (lbs/hr) (a x b x c x d)	Conversion Factor (tons/yr)/(lbs/hr) (e)	Emissions (tons/yr) (a x b x c x d x e)
PNEUMATIC LOADING OF LIME SILO							
				.11		4.38	
				.11		4.38	
				.11		4.38	
Number of Discharge Points (a)	**Maximum Throughput Rate (ton/hr) (b)**	**Maximum Amount of Lime Added by Weight (percentage/100) (c)**		**Emission Factor (lb/ton) (d)**	**Emissions (lbs/hr) (a x b x c x d)**	**Conversion Factor (tons/yr)/(lbs/hr) (e)**	**Emissions (tons/yr) (a x b x c x d x e)**
DISCHARGING OF LIME ONTO CONVEYOR BELTS							
				.000048		4.38	
				.000048		4.38	
				.000048		4.38	
TOTAL PM_{10} EMISSIONS							

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

TABLE 7: TOTAL PM_{10} EMISSIONS FROM ALL EMISSIONS UNITS

EMISSIONS UNIT	TOTAL PM_{10} EMISSIONS	
	lb/hr	ton/yr
Batch Drop Operations (TABLE 1 total)		
Loading of Feed Hoppers (TABLE 2 total)		
Crushers (TABLE 3 total)		
Screens (TABLE 4 total)		
Stackers and Transfer points (TABLE 5 total)		
Lime Silos (TABLE 6 total)		
Total PM_{10} Emissions from all units		

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

2. EMISSIONS FROM PROCESS SUPPORT GENERATORS

Generators and internal combustion engines, which are used in process support, burn different fuels like gasoline or diesel for purposes of generating energy. This combustion process is a possible source for the emission of air pollutants.

a. **Emissions of CO, VOX, SOx, NOx, and PM_{10}**

The following table, TABLE 8.a, must be complete to estimate emissions of CO, VOC, SOx, NOx, and PM_{10} from the use of generators (internal combustion engines). In the calculation of total emissions, choices (b), (c), or (d) need to be made based on the fuel used. The horsepower rating listed in column (a) must be multiplied by the suitable emission factor (column (b), (c), or (d)) to yield the total emissions of each pollutant in pounds per hour. The horsepower rating listed in column (a) must be multiplied by the suitable emission factor (column (b), (c), or (d)) and the conversion factor listed in column (e) to yield the total emissions of each pollutant in tons per year.

Please copy this page if you have more than one generator or internal combustion engine.

TABLE 8.a: INTERNAL COMBUSTION ENGINE EMISSIONS

Pollutant	Horsepower rating (a)	Emission factors (lb/hp-hr)			Emissions (lb/hr) (a x (b or c or d)	Conversion factor (ton/yr)/(lb/hr) (e)	Total emissions (ton/yr) (a x (b or c or d) x e)
		Gasoline (b)	Diesel (<=600hp) (c)	Diesel (>600hp) (d)			
CO		.44	.0067	.0053		4.38	
VOC		.022	.0025	.0007		4.38	
NOx		.011	.031	.024		4.38	
PM_{10}		.00072	.0022	.00045		4.38	
SOx		.00059	.002	.0032		4.38	

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

b. Speciated VOC Emissions from Process Support Generators

The following table, TABLE 8.b, must be completed to estimate the emissions of speciated VOCs from the use of generators(internal combustion engines). The fuel consumption rate listed in column (a) must be multiplied by the suitable emission factor (column (b) or (c)) to yield the total emissions of each pollutant in pounds per hour. The fuel consumption rate listed in column (a) must be multiplied by the suitable emission factor (column (b) or (c)) and the conversion factor listed in column (d) to yield the total emissions of each pollutant in tons per year.

Please copy this page if you have more than one generator or internal combustion engine.

TABLE 8.b: INTERNAL COMBUSTION ENGINE SPECIATED EMISSIONS

Pollutant	Fuel Rate (gal/hr) (a)	Emissions Factors (lb/gal)		Emissions (lb/hr) (a x (b or c))	Conversion factor (ton/yr)/(lb/hr) (d)	Total emissions (ton/yr) (a x (b or c) x d)
		Diesel (<=600hp) (b)	Diesel (>600hp) (c)			
Acetaldehyde		1.0E-08	3.5E-10		4.38	
Acrolein		1.0E-09	1.0E-10		4.38	
Benz(a)anthrazene		2.3E-11	ND		4.38	
Benzene		1.2E-08	1.0E-08		4.38	
Benzo(a)pyrene		2.6E-12	ND		4.38	
1,3-Butadiene		5.4E-10	ND		4.38	
Dibenz(a,h)anthracene		8.0E-12	ND		4.38	
Formaldehyde		1.6E-08	1.0E-09		4.38	
Naphthalene		1.0E-09	ND		4.38	
Toluene		5.0E-09	3.0E-09		4.38	
Xylene		3.0E-09	2.0E-09		4.38	

Reviewed by	Date

FORM 3: EMISSIONS CALCULATIONS CONTINUED

3. NON-POINT SOURCES

a. Calculating Emissions From Aggregate Storage Piles

TABLE 9.a must be completed in order to calculate the PM_{10} emissions from the aggregate storage pile(s). To calculate the emissions from the aggregate storage pile(s) in pounds per hour, the total number of storage piles listed in column (a) is multiplied by the emission factor listed in column (b). To calculate the emissions from the aggregate storage pile(s) in tons per year, the total number of storage piles listed in column (a) is multiplied by the emission and conversion factors listed in columns (b) and (c).

TABLE 9.a: PM10 EMISSIONS FROM AGGREGATE STORAGE PILES

Total Number of Aggregate Storage Piles (a)	Emission Factor (lb/hr) (b)	Emissions (lb/hr) (a x b)	Conversion factor (ton/yr)/(lb/hr) (c)	Total emissions (tons/yr) (a x b x c)
	.000233		4.38	

Reviewed by	Date

b. Calculating Emissions From Haul Roads

TABLE 9.b must be completed in order to calculate the PM10 emissions from the haul road(s). To calculate emissions from the haul roads in pounds per hour, the average number of vehicle miles traveled in an hour listed in column (a) is multiplied by the emission factor in column (b). To calculate emissions from the haul roads in tons per year, the average number of vehicle miles traveled in an hour listed in column (a) is multiplied by the emission and conversion factors listed in columns (b) and (c).

TABLE 9.b: PM10 EMISSIONS FROM HAUL ROADS

Average Number of Vehicle Miles Traveled in an hour (a)	Emission Factor (lb/VMT) (b)	Emissions (lb/hr) (a x b)	Conversion factor (ton/yr)/(lb/hr) (c)	Total emissions (tons/yr) (a x b x c)
	.19		**4.38**	

Reviewed by	Date

FORM 4: EQUIPMENT LIST

Type of Equipment	Maximum Rated Capacity (ton/hr)	Make	Model	Serial Number	Date of Manufacture	Equipment I.D. Number

FORM 5: AIR POLLUTION CONTROLS

1. In order for ADEQ to fully evaluate a Permit application, the type of air pollution controls utilized must be submitted. This section of the manual is intended to assist the applicant in listing the air pollution controls that are utilized at the plant. TABLE 10 must be completed by check marking each emission point(s) with the appropriate air pollution control device. Generally emissions are controlled with spray bars, sprinkler systems and a water truck. In addition, some operators choose to use a chemical surfactant or dust palliative. Shaded boxes represent air pollution control devices which are typically not utilized with the referenced emission point(s).

TABLE 10: AIR POLLUTION CONTROLS CHECKLIST

Air Pollution Control Device	Emission Point							
	Crushers	Screens	Transfer Points	Stackers	Haul Roads	Storage Piles	Other:	Other:
Spray Bars								
Sprinklers								
Water Truck								
Water Hose								
Venturi Scrubber								
Low-Energy Scrubber								
Baghouse								
Other:								
Other:								

2. For each Venturi Scrubber, Low-Energy Scrubber, or Baghouse please provide the following information. The manufacturer of the control device should be able to provide you with the necessary information including the rated efficiency of the device. If more than one device is used, make copies of this page and complete one for each device:

a. Type of equipment (e.g. venturi scrubber, low-energy scrubber, baghouse etc.): _____

b. Rated efficiency of equipment (in percent): _____

c. If the device has a stack emission point:

i. Stack flow rate (cubic feet per second): _____

ii. Inside diameter of the stack (feet): _____

FORM 6: COMPLIANCE PLAN AND CERTIFICATION

1. Applicant hereby affirms that it is in compliance with all applicable requirements and will continue to comply with such requirements.

2. For all applicable requirements for which the source is out of compliance, the applicant hereby affirms that it will submit a schedule of compliance.

3. For any additional applicable requirements that become effective during the term of the Permit, Applicant affirms that it will meet such requirements on a timely basis.

4. The Applicant hereby affirms that it will submit a compliance certification once each year. The compliance certification shall describe the compliance status of the source with respect to each permit condition and the methods used for determining the compliance status.

Certification of Compliance and Truth Accuracy and Completeness

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

I certify that I have knowledge of the facts herein set forth and in this application, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Arizona Department of Environmental Quality as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Arizona Administrative Code, Title 18, Chapter 2 and the conditions of my permit or I will ensure that this responsibility is delegated to the renter or lessee by providing them a copy of the Permit.

Typed or Printed Company Name: _____

Official Title of Signer: _____

Typed or Printed Name of Signer: _____

Signature of Responsible Official: _____ Date: _____

FORM 7: MOVE NOTICE FORM

STATE OF ARIZONA

NOTICE OF START-UP, MOVE OR STOP FOR

PORTABLE SOURCES AND MINE EQUIPMENT

General Information

6 List all equipment I.D. numbers and applicable permit numbers 7

1. Company Name: _____

   Address: _____

   City, State, ZIP: _____

2. Contact Person: _____ Telephone: _____

3. Please Check Where Appropriate: CONTRACTOR ☐: OWNER ☐: OPERATOR ☐: OPEN PIT ☐: UNDERGROUND ☐: MILL ☐:

   QUARRY ☐: HOT PLANT ☐: SMELTER ☐: AGGREGATE PLANT ☐: BATCH PLANT ☐: LEACH PLANT ☐: OTHER ☐

4. Mine/Plant Name: _____

5. Current Location: (Nearest City/Town) (County) _____ ZIP Code _____

   RANGE: _____ TOWNSHIP: _____ SECTION: _____

6. New Location: (Nearest City/Town) (County) _____ ZIP Code _____

   RANGE: _____ TOWNSHIP: _____ SECTION: _____

   Contact Person On-Site: _____

   Driving Directions to New Location: _____

   _____

7. In compliance with Titles 18 and 27 of the Arizona Administrative Code, we are submitting this written notice to the State Mine Inspector and/or the Department of Environmental Quality of our intent to: START ☐; STOP ☐; MOVE ☐ an operation.

8. Today's Date (MM/DD/YY): _____ Startup Date (MM/DD/YY) _____ Move Date (MM/DD/YY) _____

Environmental Quality Data

9. Description of Equipment: _____

10. ADEQ Permit Number: (List all that apply)

    _____

    _____

    _____

    _____

    _____

11. Company Equipment Number: (List separately)

    _____

    _____

    _____

    _____

    _____

12. Other Equipment Used: (Supply a Complete Equipment Listing and Equipment Layout Diagram. Use Additional Pages as Necessary.)

    _____

Mine Inspector Data

13. Entry Date: _____ 14. PIN#: _____ 15. State ID#: _____ 16. MSHA ID#:

17. Name of Primary Official: _____ 18. Name of Designated Safety Official: _____

19. Names of Other Officials:_____

20. Number of Employees (Including On-Site Office Staff):_____ 21. Principal Product:_____

22. Would You Like Our Education & Training Division To Assist You With Your Mine Safety Training?:_____

23. If Your Operation Will Be Using Hazardous Materials (e.g. Cyanide, Acid, Etc.,), Please List Below:

Check All Agencies Which Were Notified:

Q Arizona State Mine Inspector, 1700 W. Washington, Ste 400
Phoenix, AZ 85007. (602) 542-5971

Q Arizona Department of Environmental Quality, Office
Of Air Quality. 3003, N. Central Ave.,
Phoenix, AZ- 85012-290703 (602) 207-2316

APPENDIX

Department of Environmental Quality - Air Pollution Control

TITLE 18. ENVIRONMENTAL QUALITY
CHAPTER 2. AIR POLLUTION CONTROL
ASPHALT PLANT APPLICATION PACKET

R18-2-702. General provisions

A. The provisions of this Article shall only apply to existing sources.

B. Except as otherwise provided in this Article relating to specific types of sources, the opacity of any plume or effluent:
   1. Shall not be greater than 40 percent, and
   2. Shall be determined by reference Method 9 in 40 CFR 60, Appendix A.

C. Where the presence of uncombined water is the only reason for the exceedance of any visible emissions requirement in this Article, such exceedance shall not constitute a violation.

D. A person owning or operating an air pollution source may ask the Director for a determination on meeting the requirements of the applicable opacity standard.
   1. The owner or operator shall submit the written reports of the results of the performance tests, the opacity observation results, and observer certification.
   2. If the Director finds that the facility is in compliance with all applicable standards for the performance test and still fails to meet the applicable opacity standard, he shall notify the owner or operator of the finding.
   3. The owner or operator may petition the Director within ten days of receipt of notification, asking the Director to make an appropriate adjustment to the opacity standard for the facility.
   4. The Director shall grant the petition after public notice and opportunity for public hearing takes place, and upon a demonstration by the owner or operator that:
      a. The affected facility and the associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance test.
      b. The performance tests were performed under the conditions established by the Director.
      c. The affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity requirement.
   5. The Director shall establish an opacity standard for the affected facility based on the determination made in paragraph (4) of this subsection. The opacity standard shall be set at a level indicated by the performance and opacity tests, providing that the source will be able to meet the mass or concentration standard and the opacity standard at all times. Such opacity standard shall be incorporated as a condition of the permit for the affected facility.
   6. The Director shall publish the opacity standard once in one or more newspapers of general circulation in the county or counties concerned.

E. The process weight rate utilized in this Article shall be determined as follows:
   1. For continuous or long run, steady-state process sources, the process weight rate shall be the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.
   2. For cyclical or batch process sources, the process weight rate shall be the total process weight for a period which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such period.

R18-2-722. Standards of performance for existing gravel or crushed stone processing plants

A. The provisions of this Section are applicable to the following affected facilities: primary rock crushers, secondary rock crushers, tertiary rock crushers, screens, conveyors and conveyor transfer points, stackers, reclaimers, and all gravel or crushed stone processing plants and rock storage piles.

B. No person shall cause, allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any gravel or crushed stone processing plant in total quantities in excess of the amounts calculated by one of the following equations:
   1. For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

      $E = 4.10P^{0.67}$ where:

      E = the maximum allowable particulate emissions rate in pounds-mass per hour.

      P = the process weight rate in tons-mass per hour.
   2. For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

      $E = 55.0P^{0.11}-40$ where

      "E" and "P" are defined as indicated in paragraph (1) of this subsection.

C. For reference purposes only the equations in subsection (B) of this Section are plotted in Appendix 11, Figure 2. The emission values obtained from the graph are approximately correct for the process weight rates shown. However, the actual values shall be calculated from the applicable equations and rounded off to two decimal places.

D. Spray bar pollution controls shall be utilized in accordance with "EPA Control of Air Emissions From Process Operations In The Rock Crushing Industry" (EPA 340/1-79-002), "Wet Suppression System" (pages 15-34), amended as of January, 1979 (and no future amendments or editions), as incorporated herein by reference and on file with the Office of the Secretary of State, with placement of spray bars and nozzles as required by the Director to minimize air pollution.

E. Fugitive emissions from gravel or crushed stone processing plants shall be controlled in accordance with R18-2-604 through R18-2-607.

F. The owner or operator of any affected facility subject to the provisions of this Section shall install, calibrate, maintain, and operate monitoring devices which can be used to determine daily the process weight of gravel or crushed stone produced. The weighing devices shall have an accuracy of ± five percent over their operating range.

G. The owner or operator of any affected facility shall maintain a record of daily production rates of gravel or crushed stone produced.

H. The test methods and procedures required by this Section are as follows:
   1. The reference methods in 40 CFR 60, Appendix A shall be used to determine compliance with the standards prescribed in this Section as follows:
      a. Method 5 for concentration of particulate matter and moisture content.
      b. Method 1 for sample and velocity traverses.
      c. Method 2 for velocity and volumetric flow rate.
      d. Method 3 for gas analysis.
   2. For Method 5, the sampling time for each run shall be at least

60 minutes and the minimum sample volume is 0.85 dscm (30 dscf), except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Director. Sampling shall not be started until 30 minutes after start-up and shall be terminated before shutdown procedures commence. The owner or operator of the affected facility shall eliminate cyclonic flow during performance tests in a manner acceptable to the Director.

R18-2-901. Standards of performance for new stationary sources

Except as provided in R18-2-902 through R18-2-905, 40 CFR 60.1 through 60.748, and accompanying appendices, the federal standards of performance for new stationary sources adopted as of July 1, 1991, (and no future editions) as listed below, are incorporated herein by reference, and are on file with the Office of the Secretary of State and shall be applied by the Department.

65. Subpart OOO - Nonmetallic Mineral Processing Plants.

40 CFR Chapter OOO (7-1-96 Edition)

40 CFR 60.670Applicability and designation of affected facility.

(a) Except as provided in paragraphs (b), (c) and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:
- (1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 23 megagrams per hour (25 tons per hour) or less;
- (2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 136 megagrams per hour (150 tons per hour) or less; and
- (3) Common clay plants and pumice plants with capacities, as defined in § 60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d) (1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in § 60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§ 60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.
- (2) An owner or operator seeking to comply with this paragraph shall comply with the reporting requirements of § 60.676 (a) and (b).
- (3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of § § 60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

40 CFR 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveyer system means a device or transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment, specified in § 60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:
- (a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.
- (b) Sand and Gravel.
- (c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.
- (d) Rock Salt.
- (e) Gypsum.
- (f) Sodium compound, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
- (g) Pumice.
- (h) Gilsonite.
- (I) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.
(k) Barite.
(1) Fluorospar.
(m) Feldspar.
(n) Diatomite.
(o) Perlite.
(p) Vermiculite.
(q) Mica.
®) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, Portland cement plants, or any other facility processing nonmetallic minerals except as provided in § 60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

40 CFR 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:
  (1) Contain particulate matter in excess of 0.05 g/dscm; or
  (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of § 60.676 (c), (d), and (e).
(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d) and (e) of this section.
(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.
(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
  (1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in § 60.671.
  (2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

40 CFR 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under § 60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.
(b) Under § 60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components <except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

40 CFR 60.674 Monitoring of operations.

The owner or operator of any affect ed facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:
(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±-250 Pascals ±l inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.
(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be

calibrated on an annual basis in accordance with manufacturer's instructions.

40 CFR 60-675 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.272(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121EC (250EF), to prevent water condensation on the filter.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(c) In determining compliance with the particulate matter standards in § 60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in § 60.11, with the following additions:

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(d) In determining compliance with § 60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(I) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with § 60.676(d), the owner or operator shall record the measurements as required § 60.676(c) using the monitoring devices in § 60.674 (a) and (b) during each particulate matter run and shall determine the averages.

40 CFR 60.676 Reporting and Record keeping.

(a) Each owner or operator seeking to comply with § 60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(I) The rated capacity in tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(I) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(I) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(I) The rated capacity in tons of the existing storage bin being replaced and (ii) The rated capacity in tons of replacement storage bins.

(b) Each owner or operator seeking to comply with § 60.670(d) shall submit the following data to the Director of the Emission Standards and Engineering Division, (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

(1) The information described in § 60.676(a).

(2) A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same control device; and

(3) The estimated age of the existing facility.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30 percent from the averaged determined during the most recent performance test.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in § 60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with § 60.672 (b) and (c) and reports of observations using Method 22 to demonstrate compliance with § 60.672(e).

(g) The requirements of this paragraph remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with paragraphs (a), (c), (d), (e), and (f) of this

section, provided that they comply with requirements established by the State. Compliance with paragraph (b) of this section will still be required.

R18-2-601. General

For purposes of this Article, any source of air contaminants which due to lack of an identifiable emission point or plume cannot be considered a point source, shall be classified as a nonpoint source. In applying this criteria, such items as air-curtain destructors, heater-planners, and conveyor transfer points shall be considered to have identifiable plumes. Any affected facility subject to regulation under Article 7 of this Chapter or A.A.C. Title 9, Chapter 3, Article 8, shall not be subject to regulation under this Article.

R18-2-604. Open areas, dry washes or riverbeds

A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.

B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.

C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and three-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

R18-2-605. Roadways and streets

A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down detouring or by other reasonable means.

B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

R18-2-606. Material handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

R18-2-607. Storage piles

A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.

B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

R18-2-310. Excess emissions

A. Emissions in excess of an applicable emission limitation contained in this Chapter or in the terms of a permit shall constitute a violation. For all situations that constitute an emergency as defined in R18-2-306(E), the affirmative defense and reporting requirements contained in that provision shall apply. In all other circumstances, it shall be an affirmative defense if the owner or operator of the source has complied with the reporting requirements of subsection © of this Section in a timely manner, and has demonstrated all of the following:

1. The excess emissions resulted from a sudden and unavoidable breakdown of the process or the control equipment; resulted from unavoidable conditions during startup or shutdown; resulted from unavoidable conditions during an upset of operations; or that greater or more extended excess emissions would result unless scheduled maintenance is performed;
2. The air pollution control equipment, process equipment, or processes were at all times maintained and operated, in a manner consistent with good practice for minimizing emissions;
3. Where repairs were required, such repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded and off-shift labor and overtime were utilized where practical to insure that such repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the owner or operator satisfactorily demonstrated that such measures were impractical;
4. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
5. All feasible steps were taken to minimize the impact of the excess emissions on potential violations of ambient air quality standards;
6. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and,
7. During the period of excess emissions there were no measured violations of the ambient air quality standards established in Article 2 of this Chapter which could be attributed to the emitting source.

B. It shall be the burden of the owner or operator of the source to demonstrate, through submission of the data and information required by this Section, that all reasonable and practicable measures within the owner or operator's control were implemented to prevent the occurrence of excess emissions.

C. Excess emissions shall be reported as follows:

1. The owner or operator of any source issued a permit shall report to the Director any emissions in excess of the limits established by this Chapter or the applicable permit. Such report shall be in two parts as specified below:

a. Notification by telephone or facsimile within 24 hours of the time when the owner or operator first learned of the occurrence of excess emissions including all available information from paragraph (2) of this subsection.
b. Detailed written notification within 72 hours of the notification pursuant to subparagraph (a) of this paragraph.

2. The excess emissions report shall contain the following information:
a. The identity of each stack or other emission point where the excess emissions occurred.
b. The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.
c. The time and duration or expected duration of the excess emissions.
d. The identity of the equipment from which the excess emissions emanated.
e. The nature and cause of such emissions.
f. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.
g. The steps that were or are being taken to limit the excess emissions. If the source's permit contains procedures governing source operation during periods of start-up or malfunction and the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

D. In the case of continuous or recurring excess emissions, the notification requirements of this Section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to subsection (C)(1)(b) of this Section.

E. Information required to be submitted by this Section shall be summarized and reported to the Director in accordance with provisions contained in the applicable permit issued pursuant to the requirements of this Chapter.

R18-2-311. Test methods and procedures

A. Except as otherwise specified in this Chapter, the applicable procedures and testing methods contained in the Arizona Testing Manual; 40 CFR 52, Appendices D and E; 40 CFR 60, Appendices A through F; and 40 CFR 61, Appendices B and C shall be used to determine compliance with the requirements established in this Chapter or contained in permits issued pursuant to this Chapter.

B. Except as otherwise provided in this subsection the opacity of visible emissions shall be determined by Reference Method 9 of the Arizona Testing Manual. A permit may specify a method, other than Method 9, for determining the opacity of emissions from a particular emissions unit, if the method has been promulgated by the Administrator in 40 CFR 60, Appendix A.

C. Except as otherwise specified in this Chapter, the heat content of solid fuel shall be determined according to ASTM method D-3176-89, (Practice for Ultimate Analysis of Coal and Coke) and ASTM method D-2015-91, (Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter).

D. Except for ambient air monitoring and emissions testing required under Articles 9 and 11 of this Chapter, alternative and equivalent test methods in any test plan submitted to the Director may be approved by the Director for the duration of that plan provided that the following three criteria are met:
1. The alternative or equivalent test method measures the same chemical and physical characteristics as the test method it is intended to replace.
2. The alternative or equivalent test method has substantially the same or better reliability, accuracy, and precision as the test method it is intended to replace.
3. Applicable quality assurance procedures are followed in accordance with the Arizona Testing Manual, 40 CFR 60 or other quality assurance methods which are consistent with principles contained in the Arizona Testing Manual or 40 CFR 60 as approved by the Director.

R18-2-312. Performance tests

A. Within 60 days after a source subject to the permit requirements of this Article has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 180 days after initial start-up of such source and at such other times as may be required by the Director, the owner or operator of such source shall conduct performance tests and furnish the Director a written report of the results of the tests.

B. Performance tests shall be conducted and data reduced in accordance with the test method and procedures contained in the Arizona Testing Manual unless the Director:
1. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology,
2. Approves the use of an equivalent method,
3. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, or
4. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Director's satisfaction that the source is in compliance with the standard.
5. Nothing in this Section shall be construed to abrogate the Director's authority to require testing.

C. Performance tests shall be conducted under such conditions as the Director shall specify to the plant operator based on representative performance of the source. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard.

D. The owner or operator of a permitted source shall provide the Director two weeks prior notice of the performance test to afford the Director the opportunity to have an observer present.

E. The owner or operator of a permitted source shall provide, or cause to be provided, performance testing facilities as follows:
1. Sampling ports adequate for test methods applicable to such facility.
2. Safe sampling platform(s).
3. Safe access to sampling platform(s).
4. Utilities for sampling and testing equipment.

F. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances

beyond the owner or operator's control, compliance may, upon the Director's approval, be determined using the arithmetic means of the results of the two other runs. If the Director, or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director, or the Director's designee is not present, tests may only be stopped for good cause, which includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the operator's control. Termination of testing without good cause after the first run is commenced shall constitute a failure of the test.

G. Except as provided in Subsection (H) compliance with the emission limits established in this Chapter or as prescribed in permits issued pursuant to this Chapter shall be determined by the performance tests specified in this Section or in the permit.

H. In addition to performance tests specified in this Section, compliance with specific emission limits may be determined by:
1. Opacity tests.
2. Emission limit compliance tests specifically designated as such in the regulation establishing the emission limit to be complied with.
3. Continuous emission monitoring, where applicable quality assurance procedures are followed and where it is designated in the permit or in an applicable requirement to show compliance.

I. Nothing in this Section shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

R18-2-315. Posting of permit

A. Any person who has been granted an individual or general permit shall post such permit, or a certificate of permit issuance on location where the equipment is installed in such a manner as to be clearly visible and accessible. All equipment covered by the permit shall be clearly marked with one of the following:
1. The current permit number.
2. A serial number or other equipment number that is also listed in the permit to identify that piece of equipment.

B. A copy of the complete permit shall be kept on the site.

R18-2-327. Annual emissions inventory questionnaire

A. Every source subject to a permit requirement under this Chapter shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31 or ninety days after the Director makes the inventory form available, whichever occurs later, and shall include emission information for the previous calendar year. These requirements apply whether or not a permit has been issued and whether or not a permit application has been filed.

B. The questionnaire shall be on a form provided by the Director and shall include the following information:
1. The source's name, description, mailing address, contact person and contact person phone number, and physical address and location, if different than the mailing address.
2. Process information for the source, including design capacity, operations schedule, and emissions control devices, their description and efficiencies.
3. The actual quantity of emissions from permitted emission points and fugitive emissions as provided in the permit, including documentation of the method of measurement, calculation or estimation, determined pursuant to subsection © of this Section, of the following regulated air pollutants:
   a. Any single regulated air pollutant in a quantity greater than one ton or the amount listed for the pollutant in subparagraph (a) of the definition of "significant" in R18-2-101, whichever is less.
   b. Any combination of regulated air pollutants in a quantity greater than 2½ tons.

C. Actual quantities of emissions shall be determined using the following emission factors or data:
1. Whenever available, emissions estimates shall either be calculated from continuous emissions monitors certified pursuant to 40 CFR Part 75, Subpart C and referenced appendices, as published in the Federal Register on January 11, 1993 (and no later editions) which is incorporated herein by reference, and is on file with the Department and the Secretary of State, or data quality assured pursuant to Appendix F of 40 CFR Part 60.
2. When sufficient data pursuant to (C)(1) is not available, emissions estimates shall be calculated from data from source performance tests conducted pursuant to R18-2-312 in the calendar year being reported or, when not available, conducted in the most recent calendar year representing the operating conditions of the year being reported.
3. When sufficient data pursuant to (C)(1) or (C)(2) is not available, emissions estimates shall be calculated using emissions factors from EPA Publication No. AP-42 "Compilation of Air Pollutant Emission Factors", Volume I: Stationary Point and Area Sources, Fourth Edition, supplements A through F, 1985, U.S. Environmental Protection Agency, Research Triangle Park, NC. (GPO Order No. 055-000-00251-7), (and no future editions) which is incorporated herein by reference and is on file with the Department of Environmental Quality and the Office of Secretary of State. AP-42 can be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, (202) 783-3238.
4. When sufficient data pursuant to (C)(1) through (C)(3) is not available, emissions estimates shall be calculated from material balance using engineering knowledge of process.
5. When sufficient data pursuant to (C)(1) through (C)(4) is not available, emissions estimates shall be calculated by equivalent methods approved by the Director. The Director shall only approve methods that are demonstrated as accurate and reliable as the applicable method in paragraphs (1) through (4) of this subsection.

D. Actual quantities of emissions calculated under subsection © of this Section shall be determined on the basis of actual operating hours, production rates, in-place process control equipment, operational process control data, and types of materials processed, stored, or combusted.

E. An amendment to an annual emission inventory questionnaire, containing the documentation required by paragraph (B)(3) of this Section, shall be submitted to the Director by any source whenever it discovers or receives notice, within two years of the original submittal, that incorrect or insufficient information was submitted to the Director by a previous questionnaire. If the incorrect or insufficient information resulted in an incorrect annual emissions fee, the Director shall require that additional payment be made or shall apply an amount as a credit to a future annual emissions fee. The submittal of an amendment under this subsection shall not subject the owner or operator to an enforcement action or a civil or criminal penalty if the original submittal of incorrect or insufficient information was due to reasonable cause and not wilful neglect.

F. The Director may require submittal of supplemental emissions inventory questionnaires for air contaminants pursuant to A.R.S. §§ 49-422, 424, and 426.03 through 426.08.

R18-2-324. Portable sources

A. A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. § 49-479 shall obtain a permit from that county. A portable source with a county permit, shall not operate in any other county.

B. A portable source which has a county permit but proposes to operate outside the county shall obtain a permit from the Director. Upon issuance of a permit by the Director, the county shall terminate the county permit for that source. Before commencing operation in the new county, the source shall notify the Director and the control officer who has jurisdiction over the geographic area that includes the new location according to subsection (D) of this Section.

C. An owner of portable source equipment which requires a permit under this Chapter shall obtain the permit prior to renting or leasing said equipment. This permit shall be provided by the owner to the renter or lessee and the renter or lessee shall be bound by the permit provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the lessee or renter shall be responsible for the operation of this equipment in compliance with the permit conditions and any violations thereof.

D. A portable source may be transferred from one location to another provided that the owner or operator of such equipment notifies the Director and any control officer who has jurisdiction over the geographic area that includes the new location of the transfer by certified mail at least ten working days before the transfer. The notification required under this subsection shall include:

1. A description of the equipment to be transferred including the permit number for such equipment;
2. A description of the present location;
3. A description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
4. The date on which the equipment is to be moved; and
5. The date on which operation of the equipment will begin at the new location.

E. Any permit for a portable source shall contain conditions that will assure compliance with all applicable requirements at all authorized locations.

R18-2-201. Particulate matter

A. The primary ambient air quality standards for particulate matter are:

1. 50 micrograms per cubic meter of PM_{10}) annual arithmetic mean concentration.
2. 150 micrograms per cubic meter of PM_{10}) 24-hour average concentration.

B. The secondary ambient air quality standards for particulate matter are:

1. 50 micrograms per cubic meter of PM_{10}) annual arithmetic mean concentration.
2. 150 micrograms per cubic meter of PM_{10}) 24-hour average concentration.

C. The primary and secondary annual ambient air quality standards for PM_{10} shall be considered attained when the expected annual arithmetic mean concentration, as determined in accordance with 40 CFR 50, Appendix K, is less than or equal to 50 micrograms per cubic meter.

D. The primary and secondary 24-hour ambient air quality standards for PM_{10} shall be considered attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms per cubic meter, as determined in accordance with 40 CFR 50, Appendix K, is less than or equal to one.

R18-2-202. Sulfur oxides (sulfur dioxide)

A. The primary ambient air quality standards for sulfur oxides, measured as sulfur dioxide, are:

1. 80 micrograms per cubic meter (0.03 ppm)) annual arithmetic mean.
2. 365 micrograms per cubic meter (0.14 ppm)) maximum 24-hour concentration not to be exceeded more than once per year.

B. The secondary ambient air quality standard for sulfur oxides, measured as sulfur dioxide is 1,300 micrograms per cubic meter (0.5 ppm) maximum 3-hour concentration not to be exceeded more than once per year.

R18-2-203. Ozone

A. The primary ambient air quality standard for ozone is 0.12 ppm (235 micrograms per cubic meter).

B. The secondary ambient air quality standard for ozone is 0.12 ppm (235 micrograms per cubic meter).

C. The standards are attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm (235 micrograms per cubic meter) is less than or equal to one, as determined by 40 CFR 50, Appendix H.

R18-2-204. Carbon monoxide

A. The primary ambient air quality standards for carbon monoxide are:

1. 9 parts per million (10 milligrams per cubic meter)) maximum 8-hour concentration not to be exceeded more than once per year.
2. 35 parts per million (40 milligrams per cubic meter)) maximum 1-hour concentration not to be exceeded more than once per year.

B. An 8-hour average shall be considered valid if at least 75 percent of the hourly averages for the 8-hour period are available. In the event that only six or seven hourly averages are available, the 8-hour average shall be computed on the basis of the hours available using six or seven as the divisor.

C. When summarizing data for comparison with the standards, averages shall be stated to one decimal place. Comparison of the data with the levels of the standards in parts per million shall be made in terms of integers with fractional parts of 0.5 or greater rounding up.

R18-2-205. Nitrogen dioxide

A. The primary ambient air quality standard for nitrogen dioxide is 0.053 parts per million (100 micrograms per cubic meter)) annual arithmetic mean.

B. The secondary ambient air quality standard for nitrogen dioxide is 0.053 parts per million (100 micrograms per cubic meter)) annual arithmetic mean.

C. The standards are attained when the annual arithmetic mean concentration in a calendar year is less than or equal to 0.053 ppm, rounded to three decimal places, with fractional parts equal to or greater than 0.0005 ppm rounded up. To demonstrate attainment, an annual mean shall be based upon hourly data that is at least 75 percent complete or upon data derived from the manual methods, that is at least 75 percent complete for the scheduled sampling days in each calendar quarter.

R18-2-206. Lead

A. The primary ambient air quality standard for lead and its compounds, measured as elemental lead, is 1.5 micrograms per cubic meter) maximum arithmetic mean averaged over a calendar quarter.

B. The secondary ambient air quality standard for lead and its compounds, measured as elemental lead, is 1.5 micrograms per cubic meter) maximum arithmetic mean averaged over a calendar quarter.

R18-2-207. Renumbered

R18-2-208. Reserved

R18-2-209. Reserved

R18-2-210. Attainment, nonattainment, and unclassifiable area designations

40 CFR 81.303 as amended as of July 1, 1992 (and no future editions) is incorporated herein by reference and is on file with the Department of Environmental Quality and the Office of Secretary of State.

R18-2-211. Reserved

R18-2-212. Reserved

R18-2-213. Reserved

R18-2-214. Reserved

R18-2-215. Ambient air quality monitoring methods and procedures

A. Only those methods which have been either designated by the Administrator as reference or equivalent methods or approved by the Director shall be used to monitor ambient air.

B. Quality assurance, monitor siting, and sample probe installation procedures shall be in accordance with procedures described in the Appendices to 40 CFR 58.

C. The Director may approve other procedures upon a finding that the proposed procedures are substantially equivalent or superior to procedures in the Appendices to 40 CFR 58.

R18-2-216. Interpretation of ambient air quality standards and evaluation of air quality data

A. Unless otherwise specified, interpretation of all ambient air quality standards contained in this Article shall be in accordance with 40 CFR 50.

B. The evaluation of air quality data in terms of procedure, methodology, and concept is to be consistent with methods described in Appendix 10 to this Chapter.

R18-2-217. Designation and classification of attainment areas

A. All attainment and unclassified areas or parts thereof shall be classified as either Class I, Class II or Class III.

B. All of the following areas which were in existence on August 7, 1977, including any boundary changes to those areas which occurred subsequent to the date of enactment of the Clean Air Act Amendments of 1977 and before March 12, 1993, shall be Class I areas irrespective of attainment status and shall not be redesignated:
1. International parks.
2. National wilderness areas which exceed 5,000 acres in size.
3. National memorial parks which exceed 5,000 acres in size.
4. National parks which exceed 6,000 acres in size.

C. The following areas shall be designated only as Class I or II:
1. An area which as of August 7, 1977, exceeds 10,000 acres in size and is one of the following:
   a. A national monument.
   b. A national primitive area.
   c. A national preserve.
   d. A national recreational area.
   e. A national wild and scenic river.
   f. A national wildlife refuge.
   g. A national lakeshore or seashore.
2. A national park or national wilderness area established after August 7, 1977, which exceeds 10,000 acres in size.

D. All other areas shall be Class II areas unless redesignated under subsections (E) or (F) of this Section.

E. The Governor or the Governor's designee may redesignate areas of the state as Class I or Class II, provided that the following requirements are fulfilled:
1. At least one public hearing is held in or near the area affected;
2. Other states, Indian governing bodies and Federal Land Managers, whose land may be affected by the proposed redesignation are notified at least 30 days prior to the public hearing.
3. A discussion document of the reasons for the proposed redesignation including a description and analysis of health, environmental, economic, social and energy effects of the proposed redesignation is prepared by the Governor or the Governor's designee. The discussion document shall be made available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing shall contain appropriate notification of the availability of such discussion document.
4. Prior to the issuance of notice respecting the redesignation of an area which includes any Federal lands, the Governor or the Governor's designee has provided written notice to the appropriate Federal Land Manager and afforded the Federal Land Manager adequate opportunity, not in excess of 60 days, to confer with the state respecting the redesignation and to submit written comments and recommendations. The Governor or the Governor's designee shall publish a list of any inconsistency between such redesignation and such recommendations, together with the reasons for making such redesignation against the recommendation of the Federal Land Manager, if any Federal Land Manager has submitted written comments and recommendations.
5. The redesignation is proposed after consultation with the elected leadership of local governments in the area covered by the proposed redesignation.
6. The redesignation is submitted to the Administrator as a revision to the SIP.

F. The Governor or the Governor's designee may redesignate areas of the state as Class III if all of the following criteria are met:
1. Such redesignation meets the requirements of subsection (E) of this Section.
2. Such redesignation has been approved after consultation with the appropriate committee of the legislature if it is in session or with the leadership of the legislature if it is not in session.
3. The general purpose units of local government representing a majority of the residents of the area to be redesignated concur in the redesignation.
4. Such redesignation shall not cause, or contribute to, concentration of any air pollutant which exceeds any maximum allowable increase or maximum allowable concentration permitted under the classification of any area.
5. For any new major source as defined in R18-2-401 or a major modification of such source which may be permitted to be constructed and operated only if the area in question is redesignated as Class III, any permit application or related materials shall be made available for public inspection prior to a public hearing.
6. The redesignation is submitted to the Administrator as a revision to the SIP.

G. A redesignation shall not be effective until approved by the Administrator as part of an applicable implementation plan.

H. Lands within the exterior boundaries of Indian reservations may be redesignated only by the appropriate Indian governing body.

R18-2-218. Limitation of pollutants in classified attainment areas

A. Areas designated as Class I, II, or III shall be limited to the following increases in air pollutant concentrations occurring over the

baseline concentration, provided that for any period other than an annual period, the applicable maximum allowable increase may be exceeded once per year at any one location:

CLASS I

	Maximum Allowable Increase (Micrograms per cubic meter)
Total suspended particulates:	
Annual geometric mean	5
24-hour maximum	10
Sulfur dioxide:	
Annual arithmetic mean	2
24-hour maximum	5
3-hour maximum	25
Nitrogen dioxide:	
Annual arithmetic mean	2.5

CLASS II

Total suspended particulates:	
Annual geometric mean	19
24-hour maximum	37
Sulfur dioxide:	
Annual arithmetic mean	20
24-hour maximum	91
3-hour maximum	512
Nitrogen dioxide:	
Annual arithmetic mean	25

CLASS III

Total suspended particulates:	
Annual geometric mean	37
24-hour maximum	75
Sulfur dioxide:	
Annual arithmetic mean	40
24-hour maximum	182
3-hour maximum	700
Nitrogen dioxide:	
Annual arithmetic mean	50

B. The baseline concentration shall be that ambient concentration level which exists in the baseline area at the time of the applicable minor source baseline date.

1. The major source baseline date is:
   a. January 6, 1975 for sulfur dioxide and particulate matter; and
   b. February 8, 1988 for nitrogen dioxide.
2. The minor source baseline date shall be the earliest date after August 7, 1977 for sulfur dioxide and particulate matter, and February 8, 1988 for nitrogen dioxide, that either:
   a. A major source as defined in R18-2-401 or a major modification submits a complete permit application to the Administrator under 40 CFR 52.21; or
   b. A major source as defined in R18-2-401 or a major modification submits a complete permit application to the Director under R18-2-304(E)(2) or R18-2-406.
3. A baseline concentration shall be determined for each pollutant for which there is a minor source baseline date and shall include both:
   a. The actual emissions representative of sources in existence on the minor source baseline date, except as provided in paragraph (4) of this subsection; and
   b. The allowable emissions of major sources as defined in R18-2-401 which commenced construction before the major source baseline date, but were not in operation by the applicable minor source baseline date.
4. The following shall not be included in the baseline concentration and shall affect the applicable maximum allowable increase:
   a. Actual emissions from any major source as defined in R18-2-401 on which construction commenced after the major source baseline date; and
   b. Actual emissions increases and decreases at any stationary source occurring after the minor source baseline date.

C. The baseline date shall be established for each pollutant for which maximum allowable increases or other equivalent measures have been established if both:

1. The area in which the proposed source or modification would construct is designated as attainment or unclassifiable for the pollutant on the date of its complete application under either subsection (B)(2)(a) or (b); and
2. In the case of a major source as defined in R18-2-401, the pollutant would be emitted in significant amounts, or in the case of a major modification, there would be a significant net emissions increase of the pollutant.

D. The baseline area shall be any area, within any intrastate area designated as attainment or unclassifiable, in which the major source as defined in R18-2-401 or a major modification establishing the minor source baseline date would construct or would have an air quality impact equal to or greater than 1 $\mu g/m^3$ (annual average) of the pollutant for which the minor source baseline date is established. Area redesignations under R18-2-217 cannot intersect or be smaller than the area of impact of any new major source as defined in R18-2-401 or a major modification which either:

1. Establishes a minor source baseline date; or
2. Is subject to either 40 CFR 52.21 or R18-2-406 and would be constructed in Arizona.

E. The maximum allowable concentration of any air pollutant in any area to which subsection (A) of this Section applies shall not exceed a concentration for each pollutant equal to the concentration permitted under the ambient air quality standards contained in this Article.

F. For purposes of determining compliance with the maximum allowable increases in ambient concentrations of an air pollutant, the following concentrations of such pollutant shall not be taken into account:

1. Concentration of such pollutant attributable to the increase in emissions from major and stationary sources which have converted from the use of petroleum products, or natural gas, or both, by reason of a natural gas curtailment order which is in effect under the provisions of Sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974, 15 U.S.C. § 792, over the emissions from such sources before the effective date of such order;
2. The concentration of such pollutant attributable to the increase in emissions from major and stationary sources which have converted from using gas by reason of a natural gas curtailment plan in effect pursuant to the Federal Power Act, 16 U.S.C. §§ 792 - 825r, over the emissions from such sources before the effective date of the natural gas curtailment plan;
3. Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary activities of a new or altered source;
4. The increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration; and
5. Concentrations attributable to the temporary increase in emissions of sulfur dioxide, nitrogen oxides or particulate matter from major sources as defined in R18-2-401 when the following conditions are met:
   a. The permit issued to such sources specifies the time period during which the temporary emissions increase of sulfur dioxide, nitrogen oxides or particulate matter would occur. Such time period shall not be renewable

and shall not exceed two years unless a longer period is specifically approved by the Director.

b. No emissions increase shall be approved which would either:
   i. Impact any portion of any Class I area or any portion of any other area where an applicable incremental ambient standard is known to be violated in that portion; or
   ii. Cause or contribute to the violation of a state ambient air quality standard.

c. The permit issued to such sources specifies that at the end of the time period described in subparagraph (a) of this paragraph, the emissions levels from the sources would not exceed the levels occurring before the temporary emissions increase was approved.

6. The exception granted with respect to increment consumption under paragraphs (1) and (2) of subsection (F) shall not apply more than five years after the effective date of the order or natural gas curtailment plan on which the exception is based.

G. If the Director or the Administrator determines that the SIP is substantially inadequate to prevent significant deterioration or that an applicable maximum allowable increase as specified in subsection (A) of this Section is being violated, the SIP shall be revised to correct the inadequacy or the violation. The SIP shall be revised within 60 days of such a finding by the Director or within 60 days following notification by the Administrator, or by such later date as prescribed by the Administrator after consultation with the Director.

H. The Director shall review the adequacy of the SIP on a periodic basis and within 60 days of such time as information becomes available that an applicable maximum allowable increase is being violated.

R18-2-219. Violations

A. One exceedance per year of the ambient air quality standards prescribed in this Article shall be allowed for each pollutant at each monitoring site.

B. Each additional exceedance at each site shall constitute a separate violation of ambient air quality standards.

C. The provisions of subsection (A) of this Section shall not apply to any of the following:
1. The annual and quarterly standards.
2. The standards for ozone prescribed in R18-2-203.
3. The primary and secondary 24-hour PM_{10} standards prescribed in R18-2-201.

R18-2-220. Air pollution emergency episodes

A. Procedures shall be implemented by the Director in order to prevent the occurrence of ambient air pollutant concentrations which would cause significant harm to the health of persons, as specified in subsection (B)(4) of this Section. The procedures and actions required for each stage are described in the Department's "Procedures for Prevention of Emergency Episodes," amended as of October 18, 1988 (and no future editions), which is incorporated herein by reference and on file with the Office of the Secretary of State.

B. The following stages are identified by air quality criteria in order to provide for sequential emissions reductions, public notification, and increased Department monitoring and forecast responsibilities. The declaration of any stage, and the area of the state affected, shall be based on air quality measurements and meteorological analysis and forecast.

1. A Stage I air pollution alert shall be declared when any of the alert level concentrations listed in paragraph (4) of this subsection are exceeded at any monitoring site and when meteorological conditions indicate that there will be a continuance or recurrence of alert level concentrations for the same pollutant during the subsequent 24-hour period. If, 48 hours after an alert has been initially declared, air pollution concentrations and meteorological conditions do not improve, the warning stage control actions shall be implemented but no warning shall be declared, unless air quality has deteriorated to the extent described in paragraph (2) of this subsection.
2. A Stage II air pollution warning shall be declared when any of the warning level concentrations listed in paragraph (4) of this subsection are exceeded at any monitoring site and when meteorological conditions indicate that there will be a continuance or recurrence of concentrations of the same pollutant exceeding the warning level during the subsequent 24-hour period. If, 48 hours after a warning has been initially declared, air pollution concentrations and meteorological conditions do not improve, the emergency stage shall be declared and its control actions implemented.
3. A Stage III air pollution emergency shall be declared when any of the emergency level concentrations listed in paragraph (4) of this subsection are exceeded at any monitoring site and when meteorological conditions indicate that there will be a continuance or recurrence of concentrations of the same pollutant exceeding the emergency level during the subsequent 24-hour period.
4. Summary of emergency episode and significant harm levels:

Pollutant	Averaging Time	Alert	Warning	Emergency	Significant Harm
Carbon Monoxide	1-hr	--	--	--	144
(mg/m^3)	4-hr	--	--	--	86.3
	8-hr	17	34	46	57.5
Nitrogen Dioxide	1-hr	1,130	2,260	3,000	3,750
($\mu g/m^3$)	24-hr	282	565	750	938
Ozone (ppm)	1-hr	.2	.4	.5	.6
PM_{10} ($\mu g/m^3$)	24-hr	350	420	500	600

R18-2-719. Standards of performance for existing stationary rotating machinery

A. The provisions of this Section are applicable to the following affected facilities: all stationary gas turbines, oil-fired turbines, or internal combustion engines. This Section also applies to an installation operated for the purpose of producing electric or mechanical power with a resulting discharge of sulfur dioxide in the installation's effluent gases.

B. For purposes of this Section, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. Compliance tests shall be conducted during operation at the normal rated capacity of each unit. The total heat input of all operating fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

C. No person shall cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any stationary rotating machinery in excess of the amounts calculated by one of the following equations:

1. For equipment having a heat input rate of 4200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 1.02Q^{0.769}$$ where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

Q = the heat input in million Btu per hour.

2. For equipment having a heat input rate greater than 4200 million Btu/hr., the maximum allowable emissions shall be determined by the following equation:

$$E = 17.0Q^{0.432}$$

where "E" and "Q" have the same meaning as in paragraph (1) of this subsection.

D. For reference purposes only, the two equations in subsection (C) of this Section are plotted in Appendix 11, Figure 1. The emission values obtained from the graph are approximately correct for the heat input rates shown. However, the actual values shall be calculated from the applicable equations and rounded off to two decimal places.

E. No person shall cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than ten consecutive seconds which exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

F. When low sulfur oil is fired, stationary rotating machinery installations shall burn fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input.

G. When high sulfur oil is fired, stationary rotating machinery installations shall not emit more than 2.2 pounds of sulfur dioxide per million Btu heat input.

H. Any permit issued for the operation of an existing source, or any renewal or modification of such a permit, shall include a condition prohibiting the use of high sulfur oil by the permittee. This condition may not be included in the permit if the applicant demonstrates to the satisfaction of the Director both that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to insure that the sulfur dioxide ambient air quality standards set forth in R18-2-202 will not be violated.

1. The terms of the permit may authorize the use of high sulfur oil under such conditions as are justified.
2. In cases where the permittee is authorized to use high sulfur oil it shall submit to the Department monthly reports detailing its efforts to obtain low sulfur oil.
3. When the conditions justifying the use of high sulfur oil no longer exist, the permit shall be modified accordingly.
4. Nothing in this Section shall be construed as allowing the use of a supplementary control system or other form of dispersion technology.

I. The owner or operator of any stationary rotating machinery subject to the provisions of this Section shall record daily the sulfur content and lower heating value of the fuel being fired in the machine.

J. The owner or operator of any stationary rotating machinery subject to the provisions of this Section shall report to the Director any daily period during which the sulfur content of the fuel being fired in the machine exceeds 0.8 percent.

K. The test methods and procedures required by this Section are as follows:

1. To determine compliance with the standards prescribed in subsections (C) through (H) of this Section, the following reference methods shall be used:
   a. Reference Method 20 in 40 CFR 60, Appendix A for the concentration of sulfur dioxide and oxygen.
   b. ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products) (General Bomb Method) for the sulfur content of liquid fuels.
   c. ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases) for the sulfur content of gaseous fuels.
2. To determine compliance with the standards prescribed in subsection (J) of this Section, the following reference methods in the Arizona Testing Manual shall be used:
   a. ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products) (General Bomb Method) for the sulfur content of liquid fuels.
   b. ASTM Method D-1072-90 (Test Method for Total Sulfur in Fuel Gases) for the sulfur content of gaseous fuels.

Fee Rule Summary for Class I Sources

SOURCE

CLASS I

Individual TITLE V

PROCESSING FEE $66/hr No maximum fee

ACCELERATED PERMIT APPLICATION FEE $15,000

ANNUAL FEE

Administrative

Aerospace:	$12,900
Cement plants:	$39,500
Combustion/Boilers	$9,600
Compressor stations:	$7,900
Electronics:	$12,700
Expandable Foam:	$9,100
Foundries:	$12,100
Landfills:	$9,900
Lime Plants:	$37,300
Copper & Nickle Plants:	$9,300
Gold Mines:	$9,300
Mobile Home Manufacturing	$9,200
Paper Mills:	$12,700
Paper Coaters:	$9,600
Petroleum Products Terminal facilities:	$14,100
Polymeric Fabric Coaters:	$12,700
Reinforced Plastics:	$9,600
Semiconductors Fabrication	$16,700
Copper Smelters:	$39,500
Utilities-Natural Gas:	$10,200
Utilities-Fossil Fuel except NG:	$20,200
Vitamin/Pharmaceutical Manufacturing:	$9,800
Wood Furniture	$9,600
Others:	$9,900
Others with Cortinuos Emission Monitoring:	$12,700

Emission Based Fee

$11.75/TON Per Pollutant for all regulated Polutants

General TITLE V

APPLICATION FEE $500

ANNUAL FEE

Administrative

Aerospace:	$12,900
Cement plants:	$39,500
Combustion/Boilers:	$9,600
Compressor stations:	$7,900
Electronics:	$12,700
Expandable Foam:	$9,100
Foundries:	$12,100
Landfils:	$9,900
Lime Plants:	$37,300
Copper & Nickle Plants:	$9,300
Gold Mines:	$9,300
Mobile Home Manufacturing:	$9,200
Paper Mills:	$12,700
Paper Coaters:	$9,600
Petroleum Products Terminal facilities:	$14,100
Polymeric Fabric Coaters:	$12,700
Reinforced Plastics:	$9,600
Semiconductors Fabrication:	$16,700
Copper Smelters:	$39,500
Utilities-Natural Gas:	$10,200
Utilities-Fossil Fue except NG:	$20,200
Vitamin/Pharmaceutical Manufacturing:	$9,800
Wood Furniture:	$9,600
Others:	$9,900
Others with Continuos Emission Monitoring:	$12,700

Notes:

There is no fee for transfers, administrative amendments, or 317 changes of permits.

The fee rate will be adjusted in the beginning of each year based on the CPI index.

Administrative and inspection fees are due each year no later than March 31st or 60 days after the Director mails the invoice, whichever is later.

Polutants for which annual emissions based fees are calculated are: Nitrogen oxides volatile organic compounds, conventional air pollutants (except carbon monoxide and ozone), any pollutant subject to Section 111 of the Act and any federally listed hazardous air pollutant.

Information for this table was taken from the A.A.C. R18-2-326 and R18-2-511

Fee Rule Summary for Class II Sources

SOURCE

CLASS II

TITLE V

INDIVIDUAL

PROCESSING FEE $36/hr No maximum Fee

ACCELERATED PERMIT APPLICATION FEE $15,000

ANNUAL FEE

Administrative

Synthetic Minor Sources - Except Portables

Aerospace:	$ 2,930
Cement plants:	$39,500
Combustion/Boilers:	$9,600
Compressor stations:	$7,900
Electronics	$ 2,700
Expandable Foam:	$9,100
Foundries:	$ 2,100
Landfills:	$0,000
Lime Plants:	$37,300
Copper & Nickle Plants:	$9,300
Gold Mines	$9,300
Mobile Home manufacturing:	$0,200
Paper Mills:	$ 2,700
Paper Coaters:	$9,600
Petroleum Products Terminal facilities:	$ 4,100
Polymeric Fabric Coaters:	$ 2,700
Reinforced Plastics:	$9,000
Semiconductors Fabrication:	$ 6,700
Copper Smelters	$39,500
Utilities Natural Gas:	$ 0,200
Utilities-Fossil Fuel except NG:	$20,200
Vitamin/Pharmaceutical Manufacturing	$9,800
Wood Furniture:	$9,600
Others:	$0,000
Others with Continuos Emission Monitoring:	$ 2,700
Stationary Sources:	$5,000
Portable Source:	$5,000
Small Source:	$500

GENERAL PERMIT

APPLICATION FEE $500

ANNUAL ADMINISTRATIVE FEE

Small Source:	$500
Others	$3,000

NON TITLE V

INDIVIDUAL

PROCESSING FEE

$63/HOUR

$25,000 MAXIMUM FEE

ACCELERATED PERMIT APPLICATION FEE $15,000

$25,000 MAXIMUM FEE

ANNUAL INSPECTION FEE

Stationary Sources:	$3,250
Portable Sources:	$3,250
Small Source:	$500

GENERAL PERMIT

APPLICATION FEE $500

ANNUAL INSPECTION FEE

Gasoline Service Station:	$600
Crematorium:	$1,000
Others:	$2,000

Notes:

There is no fee for transfers, administrative amendments, or 317 changes of permits.

The fee rate will be adjusted in the beginning of each year based on the CPI index

Administrative and Inspection fees are due each year no later than March 31st or 90 days after the Director mails the invoice, whichever is later.

Information for this table was taken from the A.A.C. R18-2-320 and R18-2-311